



PATENT SPECIFICATION

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PROVISIONAL SPECIFICATION

Improvements in and relating to Brushes and the like

I, ERNALD JOHN LIDDON FEW, a British subject, of Red Gates, Framingham Road, Brooklands, in the County of Chester, do hereby declare the nature of this invention to be as follows:—

5 This invention has reference to brushes and the like and has for its object to provide improved brushes, either for hand or mechanical use, which can be used for scraping or abrading.

10 According to this invention a brush for hand or mechanical use is made with a head formed from flexible and resilient strips coated with, or embodying, an abrasive substance or material, whereby the

15 the brush can be used for scraping or abrading purposes.
According to one embodiment of the invention as applied by way of illustration
20 to a flat hand brush, the head is made by laying side by side a plurality of strips of abrasive coated or abrasive impregnated flexible and resilient material, which are slit into narrow "fingers" downward
25 from the top; these strips may be separated by distance pieces so that there are slight spaces between the strips. The bases, or lower ends of the strips are surrounded and secured together, and to the brush
30 on a brush handle, or by a head of any handle, by a metal head such as is commonly used for securing ordinary bristles other suitable material.

35 Instead of building up the brush head by securing layers of strips together, a strip may be folded, with or without distance pieces to form any desired shape and the base thereof enclosed and attached to a handle by an enclosing head or casing
40 which may be of metal or of other material.

45 If desired the base of the brush head may be permanently mounted or encased in a base such as one made of a so-called plastic material, provided with a rib, and the securing casing mounted on the brush handle will have a corresponding slot, and

will be made to open and close, so that a worn head can be removed and a new head can be inserted. In this instance suitable
50 means is provided on the securing casing whereby it can be opened and closed, and held closed, when the brush head is inserted. Suitable means for this purpose may be a sliding ring or a pivoted clamp.

55 In making a brush for mechanical use a plurality of discs having radial cuts inward from the edges to form the fingers is used, the discs being placed side by side, and each having a central hole, the discs
60 when so placed being secured to form one unit by bosses secured at the sides. Instead of forming the brush of discs it may be made by folding strips and securing them into a wheel in such a manner that
65 their flat operative surfaces are either parallel with the faces of the wheel or across the periphery. If it be desired to use the flat face of the brush the fingers are arranged parallel with the face of the
70 wheel i.e. with their faces as they will be when cut in the disc; if it be desired to use the periphery or edge of the brush the faces will be across. Alternatively tufts made as described for the hand brushes
75 may be inserted in the periphery of a circular block.

80 It is to be understood that hand brushes made in accordance with this invention may be shaped at their ends, to form points or projections to facilitate their entry into corners which it is necessary to clean by abrasion.

85 While the invention has been described with reference to the construction in which flat strips slit into fingers are used, it is to be understood that bunches of independent strips or fingers may be secured together as in the manner of making ordinary brushes.

Dated this 7th day of December, 1945.

For the Applicant,

BARLOW, GILLET & PERCIVAL,
Chartered Patent Agents.

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COMPLETE SPECIFICATION

Improvements in and relating to Brushes and the like

I, ERNALD JOHN LIDDON FEW, a British subject, of Red Gates, Framingham Road, Brooklands, in the County of Chester, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention has reference to brushes and the like and has for its object to provide improved brushes, either for hand or mechanical use, which can be used for scraping or abrading.

According to this invention a brush for hand or mechanical use is made with a head formed from flexible and resilient strips coated with, or embodying, an abrasive substance or material, whereby the brush can be used for scraping or abrading purposes.

The invention is more particularly set forth with reference to the accompanying drawings, in which Figs. 1 and 2 are elevations at right angles of one form of flat brush made according to the invention, Fig. 3 is an elevation and under plan of a circular brush, Figs. 4, 5 and 6 are front elevation, side elevation, and plan, and Figs. 7, 8, 9 and Figs. 10, 11 and 12, are respectively front elevations, side elevations and sectional plan of construction of flat brushes, Figs. 13 and 14 are respectively a front elevation and a side sectional elevation of a rotatable brush having circular "brushes" as shown in Fig. 15, and Figs. 16 and 17 are respectively a sectional edge elevation and a front elevation of another form of rotatable brush, and Figs. 18 and 19 are respectively a front elevation and a sectional elevation of another.

As shown in the drawings and referring first to Figs. 1 and 2, where the invention is shown as applied to a flat hand brush, the head is made by laying side by side a plurality of strips of abrasive coated or abrasive impregnated flexible and resilient material 20, which are slit into narrow "fingers" 21, inward from the end; these strips may be separated by distance pieces so that there are slight spaces between the strips. The bases, or uncut ends of the strips, are surrounded and secured together, and to the brush handle, by a metal head 22 such as is commonly used for securing ordinary bristles on a brush handle, or by a head of any other suitable material.

Instead of building up the brush head by securing layers of strips together, a

strip 20 may be folded, without distance pieces, to form any desired shape, such as a circular shape in cross section, as shown in Fig. 3, and the base thereof enclosed and attached to a handle by an enclosing head or casing 22 which may be of metal or of other material.

In Figs. 4, 5, and 6, the base of the brush head is permanently mounted or encased in a base 23 such as one made of a so-called plastic material, provided with a rib 24, and the securing casing 25 mounted on the brush handle 26 has a corresponding slot 27, and is made to open and close by having a hinged part 28, so that a worn head can be removed and a new head can be inserted. In this instance a suitable means, in the form of a pin 29, is provided on the securing casing 25 to engage overlapping curls 30 in the adjacent edges of the hinged part 28 and the fixed part, so that the two parts can be held together to grip the base 23, or released to allow a worn head to be removed and a new one inserted.

In Figs. 7, 8, and 9 a different form of securing means is shown in which the edges are curled back at 31, and an external sliding clip 32 is provided which is tapered so as to draw the edges more tightly together as it is pressed down, the clip being held by a screw 33 passing through a slot 34 into the brush handle 26.

In Figs. 10, 11 and 12 a further arrangement is shown in which the part 28 is not hinged but is completely detachable, and it and the base are secured in or released from the securing casing 25 by screws and nuts 35.

In Figs. 13, 14 and 15 an embodiment of the invention is shown as designed for mechanical use in which a circular disc of material such as wood 36 is provided with a central bearing 37 and peripheral holes 38 in which abrasive heads formed as shown in Fig. 15 are made by rolling a strip 20 of abrasive material cut into fingers 21 which rolls are inserted in the holes 38 and secured there by an adhesive or other means.

In Figs. 16 and 17 a central disc of wood or other material 36 is provided, and around the periphery transverse strips 20, having fingers 21, are placed with intervening spacing members 39 and the strips 20 and spacing members are held to form a circular brush by side plates 40, having inturned edges 41 and held together by a bearing member 37 or other transverse securing means such as bolts and nuts or

screws.

In Figs. 18 and 19 a wheel is made by cutting strips of abrasive material into discs 40 having radially cut fingers 41 and spaced apart if needed, by spacing discs 42, the whole being held together by a central bearing 37, which may grip on to the discs as shown, or on to metal or other discs placed on the outside of the wheel.

10 It is to be understood that hand brushes made in accordance with this invention may be shaped at their ends, to form points or projections to facilitate their entry into corners which it is necessary to clean by abrasion.

15 While the invention has been described with reference to the construction in which flat strips slit into fingers are used, it is to be understood that bunches of strips or fingers may be secured together as in the manner of making ordinary brushes, where this arrangement is possible, and that the material may be waterproofed so that the use of the brushes in or with hot water will not harm them.

25 Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

30 1. A brush for hand or mechanical use made with a head formed from flexible and resilient strips, coated with, or embodying, an abrasive substance or material, whereby the brush can be used for scraping or abrading purposes.

2. A hand brush according to the preceding claim wherein the head is made by laying side by side a plurality of strips of abrasive coated or abrasive impregnated flexible and resilient material, slit into

fingers inward from the end, the bases or uncut ends being secured together and mounted by means of a metal head on to a brush handle.

3. A hand brush according to Claim 2 wherein the brush head is detachably secured to a handle by a metal head on the brush handle which can be opened and closed to permit the insertion and removal of the brush heads.

4. A brush for mechanical use according to Claim 1 wherein flexible and resilient strips, coated with or embodying an abrasive substance, are mounted in the periphery of a disc having a central bearing and are mounted in holes therein or clasped in place by side plates.

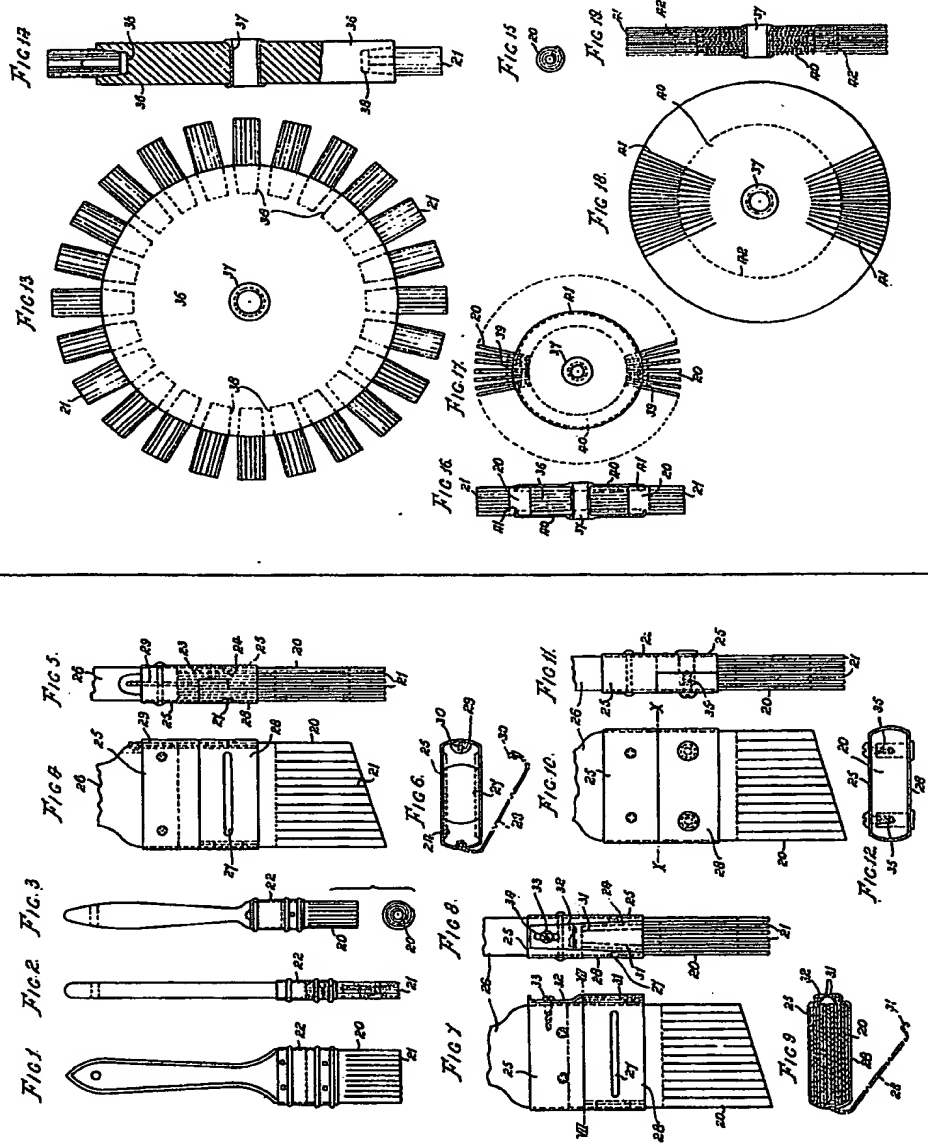
5. A brush for mechanical use according to Claim 1 made by discs of flexible and resilient material coated with or embody an abrasive substance, the discs being cut radially inwards to form fingers, and a number of such discs being mounted face to face to build up a wheel, the whole being held together by a central bearing.

6. Brushes for hand or mechanical use constructed as herein set forth and as shown in the accompanying drawings.

Dated this 4th day of December, 1946.

For the Applicant,
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Reference has been directed, in pursuance of Section 8, sub-section (2), of the Patents and Designs Acts 1907 to 1946 to Specifications Nos. 577,694, and 574,229. And in pursuance of Section 7, sub-section (4), to Specifications Nos. 445,512 and 7086/1899.



SHEET 1

